

**Statement:**

“The Office of River Protection (ORP) takes its oversight role seriously and is working to ensure the tank farms are managed every day in a safe manner protective of human health and the environment. Through the ongoing double-shell tank integrity program -- which is implemented by the site’s tank farm contractor, Washington River Protection Solutions, Inc. (WRPS) --WRPS notified ORP in August 2012 that possible tank material was seen during a visual inspection of the annulus of AY-102. The contractor completed a comprehensive leak assessment of AY-102 and, in October 2012,we determined the primary inner tank is slowly leaking waste into the annulus -- the space between the inner and exterior tank walls. The size of the spot was small and no waste has leaked out of the annulus into the environment.

The Energy Department directed WRPS to complete an ‘extent of condition’ review, including quickly expanding visual inspections of six other tanks that have similar construction with operating and process histories. This includes all tanks in the AY, AZ, and SY tank farms. The recently completed visual inspections found no additional leaks. Tank AY-102, the oldest of the double-shell tanks at Hanford, is the only double-shell tank to have leaked waste into the annulus.

We are now assessing the adequacy of the double shell tank monitoring program for the underground storage tanks and applying lessons learned from this event to improve processes and procedures,” said Tom Fletcher, Assistant Manager for the Tank Farms Project.

**Background:**

Material was discovered in the tank annulus during a regularly scheduled Double Shell Tank Integrity Inspection. In August 2012 Washington River Protection Solutions notified DOE’s Office of River Protection that material was found on the floor of the annulus of AY-102.

WRPS established a formal leak assessment team to perform a comprehensive review of Tank AY-102’s construction and operating history and to determine if tank waste leaked from the primary shell into the annulus.

Following the determination that tank AY-102 is slowly leaking waste into the annulus, an Integrated Project Team was established, including representatives from Washington State Department of Ecology and Health, DOE, and WRPS. The Integrated Project Team worked together to ensure the tank waste will continue to be stored safely and in a manner that is protective of human health, worker safety, and the environment.

On-going monitoring of the tank also continues, withvisual inspections of the annulus and liquid level monitoring of the waste in the primary tank.

**Q. How much has DOE paid WRPS in total since the inception of the contract with this contractor?**

A. Washington River Protection Solutions (WRPS) is a Prime Contractor to the Department of Energy (DOE) Office of River Protection (ORP). WRPS is responsible for the safe, compliant, cost-effective, and energy-efficient services to further the DOE-ORP mission to store, retrieve, and treat Hanford tank waste; store and dispose of treated waste; and to close the Tank Farm waste management areas to protect the Columbia River.

DOE budgeted and executed a total of approximately \$1.6 billion from 2009 through 2012 for the scope of work performed by WRPS as the prime contractor under the Tank Operations Contract.

**Q. How much was WRPS paid in total from October 2011 through 2012?**

A. For fiscal year 2012 (October 2011 – September 2012), DOE budgeted and executed about \$389 million for this work.

**Q. How much was WRPS paid through Price Based Incentives/reaching milestones/performance from October 2011 through 2012?**

A. For fiscal year 2012 (October 2011 – September 2012), WRPS earned approximately \$23 million for Performance Based Incentives (PBIs) and award fees on its performance and specified activities while executing the scope of work that totaled about \$389 million.

**Q. Please provide us with a breakdown of those PBI's for that time period. For example, what was the company paid, if any, for their work on a Power Distribution Center for AY 102? What was the company paid, if any, for their maintenance work on the tank farms? What was the company paid, if any, for retrieval work at the C Farm? (all for this time period)**

A. Please see December 19, 2012, letter 12-CPM-0189, Fiscal Year (FY) 2012 Final Fee Determination.

**Q. How much has DOE paid the contractor in total for readying AY 102 as a tank waste feeder? (ie design, engineering, procurement of needed equipment, construction, etc) How much has DOE paid the contractor for readying AY102 as a tank waste feeder in the time period of Oct. 2011 through 2012?**

A. To achieve ORP's mission, optimized and reliable feed of retrieved wastes must be provided from the Hanford tank farms to the Waste Treatment and Immobilization Plant (WTP). Tank AY-102 is one of four double-shell tanks within the AY/AZ-tank farm complex and one of 28 double-shell tanks at Hanford. For each double-shell tankfarm, the Waste Feed Delivery System workscope includes farm-specific ventilation, transfer line, and infrastructure upgrades, as well as individual tank-specific activities.

The AY/AZ-Farm infrastructure total costs to date are \$3.1 million and the AY/AZ-Farm infrastructure total costs for fiscal year 2012 (October 2011 – September 2012) are \$2.4 million.

**Q. What is the cost of a Continuous Air Monitor (CAM) for use in the annulus of double shell tanks (DST's)?**

A. The approximate cost of a CAM installation is \$40,000, with an estimated \$10,000 for annual maintenance.

**Q. What is the cost to maintain the remaining CAM's on DST's?**

A. All double-shell tanks have a number of safety features. For example, the double shell tanks located on the Hanford site are required to have operational ENRAF leak detection systems at all times. These leak detection systems consists of a liquid level monitoring device inside the primary tank and three liquid level monitoring devices spaced equally outside the primary tank in the annulus space -- the space between the primary tank and the secondary tank. The continuous air monitor (CAM) in tank AY-102 provides defense-in-depth for indication of airborne releases into the annulus due to a history of legacy airborne contamination for this tank (not tank leaks). The history of the CAM is contained in RPP-ASMT-53793, Rev. 0, *Tank 241-AY-102 Leak Assessment Report*.

**Q. What did the contractor report and when - in regard to AY 102 leaking, or possibly leaking in this time period?**

A. The August 2012 inspection was performed through ongoing tank integrity program. During the visual inspection of the annulus space of AY-102 material was discovered on the floor. This material was not observed during previous integrity program inspections in the 2006 and 2007 timeframe. The formal leak assessment team was established August 2012, and the results of their evaluation were presented to ORP in October 2012. The results can be found in the Tank 241-AY-102 Leak Assessment Report, RPP-ASMT-53793, Rev. 0.

**Additional background on the history of the CAM alarm for AY-102:**

The annulus in Tank AY-102 was known to have been exposed to contamination by previous events of airborne contamination into the annulus. The primary system used to detect leaks in waste tanks and the double shell tank annulus is the ENRAF system. CAM alarms are predominantly used as defense-in-depth and not always deemed reliable to detect leaks by themselves due to historical contamination in the annulus of the waste tank.

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